
PM TRADE
TCM-LIVE
TRADOC Capability Manager
atsc
PM TRADE-
FUTURE REQUIREMENTS
INDUSTRY PLANNING FORUM
Rob Wolf
PM TRADE Strategic Requirements Integrator
1 December 2011
TIE-DOWN
Visit the Live Training Community Portal at:
LT2Portal.org



PM TRADE

PROJECT MANAGER TRAINING DEVICES

PM TRADE

PM TRADE - 2011 I/ITSEC Events

You Are Here

MONDAY, 28 NOVEMBER

PM TRADE Grey Beard Session
Invitation Only
- 1000 - 1200
- Army Meeting Room 202B (West)

TUESDAY, 29 NOVEMBER

TSIS Update - COL Flanagan
- 1330 - 1415
- Army Booth 143

LT2 Portal: Info/Demo Session - Dillon
- 1500 - 1600
- Army Service Room 202A (West)

Live Training Instrumentation for Unmanned Systems: Challenges and Lessons Learned - Sincebaugh (P)*
- 1600
- Room 304E

Leveraging SOA within Live Training: An Assessment - Kehr, Garcia (P)*
- 1630
- Room 304E

Proven Strategies for Securely Sustaining Simulators and Training Systems - Fleener (P)*
- 1700
- Room 304H

WEDNESDAY, 30 NOVEMBER

FASIT Technology Working Group: Low Bandwidth Framework - Todd
- 0800 - 1000
- Army Meeting Room 202B (West)

Common Through Sight Video - Crew Module Unit Recorder (CTSV-CMUR)
Invitation Only
- 0800 - 1000
- Government Meeting Room #2 (207C)

Live Training Standards (Embedded Standards Update) - Kemper, Sincebaugh
- 0900 - 1100
- Army Service Room 202A (West)

Live Training Campaign Plan Brief - COL Flanagan, COL Connors
- 1300 - 1500
- Room 304C

Embedded Training Workshop #3
Invitation Only
- 1430 - 1630
- Government Meeting Room #2 (207C)

Use of the IPod Touch for Live Training - Logan, Campos (P)*
- 1630
- Room 304A

THURSDAY, 1 DECEMBER

Next Generation of Distributed Training Utilizing SOA, Cloud Computing, and Virtualization - Lanman, Horvath (P)*
- 0830
- Room 304A

PM TRADE - Future Requirements Industry Planning Forum - Wolf
- 0900 - 1000
- Army Service Room 202A (West)

Employing the Second Generation Software Product-line for Live Training Transformation - Lanman, Kemper (P)*
- 1030
- Room 304H

Development of Embedded Live, Virtual, and Constructive Training - Harrison, Rhinesmith (P)*
- 1100
- Room 304H

(P)* Paper Sessions

Partnering with Industry to Improve Efficiencies



Industry



Industry Panel educating PM TRADE workforce on the complexities of business capture planning and proposal development ***(3 Nov 2011 – Brief posted on LT2 Portal)***

- ***Industry addressed - Overall level of effort, resources, dependencies, timelines, planning & execution complexities required to prepare a successful proposal***
- ***Our intent is that through a better understanding of industries process we will be more deliberate in our spoken and written requests to improve both our efficiencies***

PM TRADE

PM TRADE is hosting 14 Information Sessions during I/ITSEC to help Industry plan and prepare for doing business with PM TRADE.

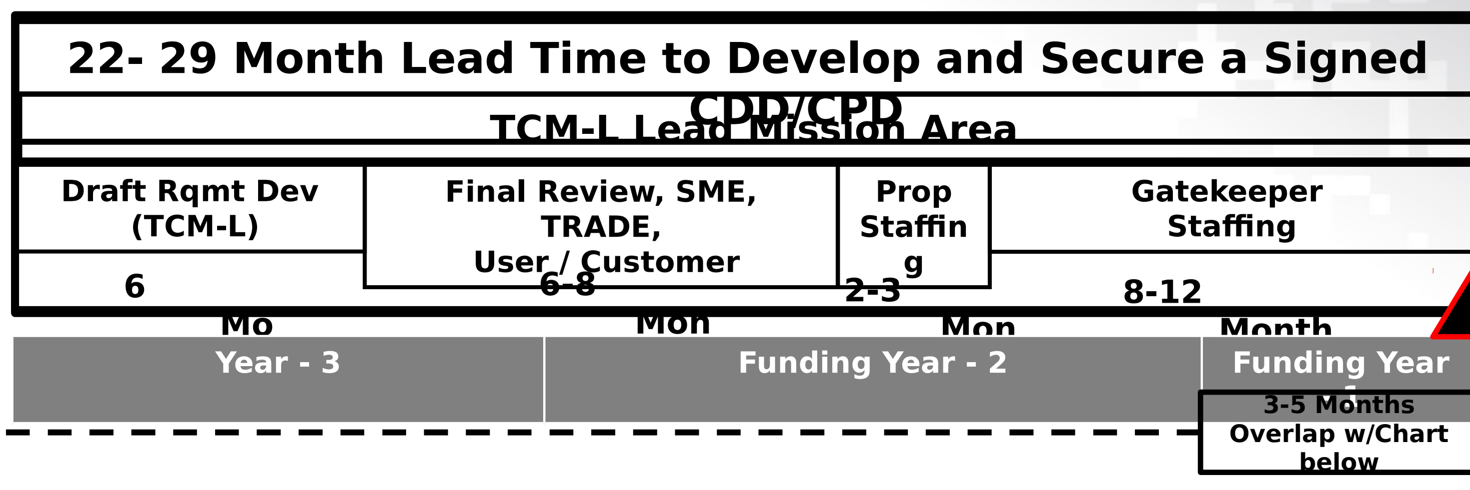
- ✓ **LT2 Portal Tutorial**
- ✓ **Technical Sessions**
  - **Standards Development**
  - **Work Shops**
- ✓ **Paper Presentations**
  - **SOA and Virtualization Concepts**
  - **Sustainment Strategies**
  - **Lessons Learned**
- ✓ **Live Training Campaign Plan**
- ✓ **Future Requirements Forum**

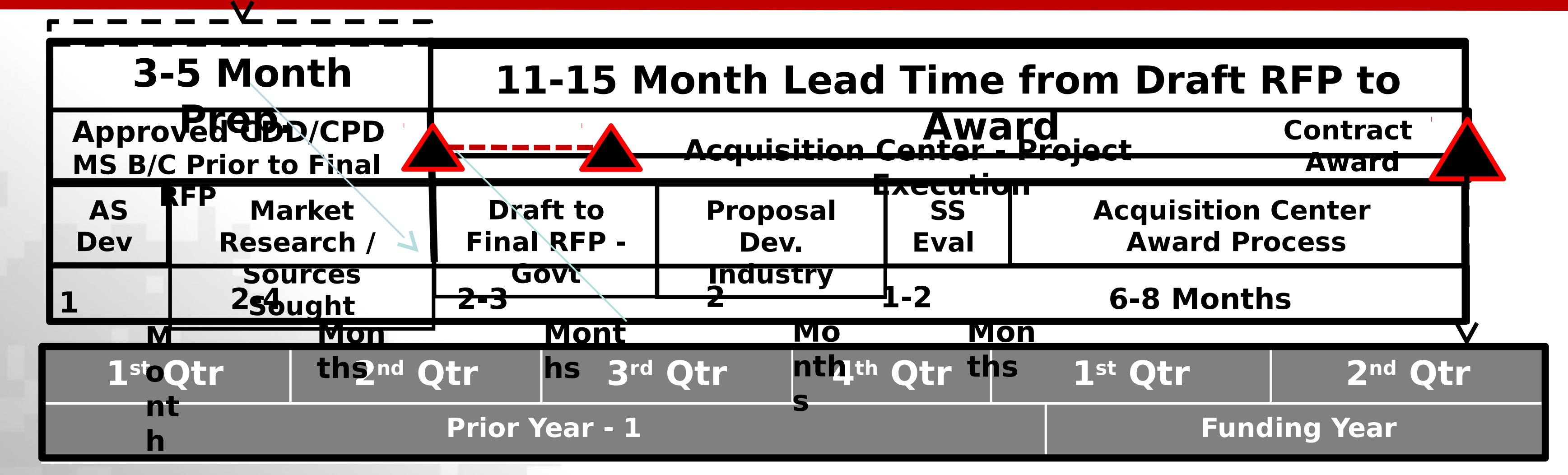
Requirements to Award Timeline



Combat Developer Timeline (TCM-L)

Requirements Lead Time to Award 33-43 Months





Materiel Developer Timeline (PM TRADE)

Industry Business Development Planning Map



PM TRADE

Program Development Timeline Estimates and Information Release Terminology

Consistency & Quality



1 Request For Information (RFI)

Market Research

- ✓ Initial Investigation of Industry Base Capability
- ✓ Limited Technical/ Business Case Information to Frame Investigation
- ✓ Phone Calls, Open House, Contractor Plant Visits, etc...

2 Sources Sought

- ✓ 1st Draft Technical Documentation for Industry Comment
- ✓ Draft Business Case Information
- ✓ Industry Exchange

3 Pink Team Review

Sources Sought (Requirements Package)

- ✓ Finalized Technical Documentation Specification, SOW, & CDRLS
- ✓ Sections B, L, M not Released
- ✓ Business Case Information

PALT Timeline Begins

4 Draft RFP (Sections A-M)

- ✓ Complete Draft RFP
- ✓ Industry Day with 1-on-1s

5 Acq. Center SRB

Final RFP

6 Proposal Is Due

...ly and Open Communications

Market Research Phase – PM Office Managed			RFP Phase – Acquisition Center Managed
Open Discussions No Information Sharing	Open Discussions - Info Sharing Reflected In Req. Docs. Update w/Change Highlights	Open Discussions -- Info Sharing Reflected In Draft RFP w/Change Highlights	All Questions in Writing thru Contracting POC - Responses Published to All Offerors

Due in... D~270 | D~180 | D~120 | D~90 | D~60/45 | D-0

Rough Planning Guide Proposal

Approximate Timelines Adjusted +/- Based on Program Complexity

FY 13 Business Opportunities



Organization	Program	Contract Vehicle	RFP Release	Award Date
PM CTIS	CTC-IS	STOC II	Nov. 11 Jan. 12	June 12 Nov. 12
PM CTIS	HITS EXCON	STOC II	May 11	Oct. 11 Jan. 12
PM CTIS	ICS	Open (Tentative)	Jun. 12	Mar. 13
PM DT	LOMAH	CARTS	Nov. 11	Feb. 12
PM DT	PDSS	CARTS	Oct. 12	Mar. 12
PM DT	N-CHS	CARTS	Feb. 12	May 12
PM DT	CATSD	CARTS	Feb. 12	May 12
PM DT	BES II	Open	Nov. 11 Feb. 12	Apr. 12 Jul. 12
PM LTS	CV TESS	STOC II	Jan. 11	Jan. 12
PM LTS	OSWV	TBD	TBD	Feb. 13** Feb 15**
PM LTS	IEDES	STOC II SB (Tent.)	Feb. 12	Sep. 12

****Revised date pending CPD approval -funding resolution**
CTC-IS – Combat Training Center – Instrumentation System
HITS EXCON - Home Station Instrumentation Training System EXCON
ICS – Instrumentation Communication Subsystem
LOMAH – Location of Hit and Miss Range
PDSS – Post Deployment Software Support
N-CHS - Non-Contact Hit Sensor Development
CATSD - Common Armor Target Silhouette Development
BES II – Battlefield Effects Simulator
CV TESS – Combat Vehicle TESS
OSWV - Opposing Force Surrogate Wheeled Vehicle
IEDES – Improvised Explosive Device Effects Simulator

Instrumentation Communication Subsystem (ICS)
for the Home Station Instrumentation Training System (HITS)



Description/Summary of Program Requirements

PEO STRI Project Manager for Training Devices (PM TRADE) has a requirement to procure up to nineteen (19) Instrumentation Communication Subsystem (ICS) at a fielding rate of one per quarter beginning in 4Q13 and ending in 4Q18. The ICS provides the bidirectional interface between the HITS exercise control subsystem (EXCON) and the vehicles and soldiers equipped with U.S, Army Tactical Engagement Simulation Systems. This effort includes production and shipping of the network infrastructure and radio player units, individual and vehicle mounting kits, logistics data, spares, manuals, TESS and CTIA interface, New Equipment Training, system verification and validation, and technical support to the EXCON production vendor. OCONUS sites include Hawaii, Alaska, Germany, and Korea. PM TRADE will not fund any development under this effort.

Acquisition Strategy

- Full open Competition (Tentative)
- Firm Fixed Price

Period of Performance

- Base year award with 4 option years

Milestones

2Q12	2Q12	3Q12	2Q13
RFI	Sources Sought	RFP	Contract Award

Point of Contact

Name: Mr. Mike Chura

Organization: PEO STRI / PM TRADE

Phone: (407) 384-5280

Email: michael.chura@us.army.mil

Funding

- OPA FY 13 – 18: $157.8 Million

Current Contract/Original Developer/OEM (if recompete)

- Current contract is Interim Range System (IRS) by Saab Training USA
- Intent is 2-4 sites with IRS – total requirement is 19 sites.

Instrumentation Communication Subsystem (ICS)

for the Home Station Instrumentation Training System (HITS)



Tactical Engagement Simulation System (TESS) ⟷ **Range Communication Network** ⟷ **Training - HITS EXCON**

Force-on-Force MILES Dismount

Force-on-Force MILES Vehicle

MILES 2000 / IWS

Small Arms Transmitter

MILES XXI / CVS

- Player ID
- Player Type
- Weapon Type
- Weapon Load
- Trigger Pull

OC Relay

Fiber or RF Link

14-19 Bn Sets

~ 1100 Radios & Mobile Nodes Per Bn

- Soldier Movement
- Weapon Firing and Real Time Casualty Assessment
- Observer / Controller Assessment

Range Operations Center (ROC)

- Exercise Scenario Development
- Data Base Management
  - Terrain
  - Players
- Indirect Fire
- 2D / 3D Display
  - Map
  - Player Location
  - Engagement
- Observation Creation
- Video
- Tactical Voice Monitoring
- After Action Review

Technical Requirements/Capability Very Similar to IRS Specification

Opposing Force Surrogate Wheeled Vehicle (OSWV)



Upgrade US Army Combat Training Center Opposing Force Vehicles

- **Tactical Vehicles:** Develop and Integrate Visual Modifications (VISMODS) on existing tactical vehicles - HMMWV ~ 69, MFTV-12 Indirect Fire, APC ~123 (Vehicle Type TBD)
- **Technical Vehicles** (Pick-Up Trucks w/ mounted weapons) : Acquire/configure ~270 with Weapon Mounts
- **Civilian On Battlefield Vehicles (COB-V):** ~720 used cars and trucks
- **Instrument ion:** MILES and CTC Radio integration (MILES/Radios acquired via existing contracts)

Program moved to the right 2 years → FY13 to FY15 award

Acquisition Strategy	Period of Performance	Milestones
• Acq. Strategy TBD – Pending CPD • Market Research to be conducted in early to mid FY12 – Weapon Platform and Vehicle Acquisition • **Formal RFI in FY13**	• TBD	June 2013 – RFI Pending Req Doc Approval – RFP Release Feb. 2015 – Contract Award

Point of Contact	Funding	Current Contract/Original Developer/OEM (if recompete)
Name: LTC Scott Tufts Organization: PM LTS Phone: 407-384-5190 Email: scott.tufts@us.army.mil	• $48M OPA over FY15 – FY20 (TBD)	• TBD

Opposing Force Surrogate Wheeled Vehicle



Requirements Document in Development – Draft



63 - HMMWVs with VISMODS to simulate RSTA/ATGM threat.

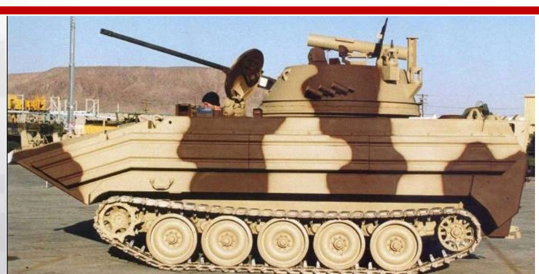


OSWV to be fielded at each CTC (NTC, JRTC, CMTC)

VISMOD Development and Integration, with full TDP and Spares



16 - Light Medium Tactical Vehicle with VISMODS to simulate Indirect Fire threat.



123 - M113A3 with VISMODS to simulate APC threat.

(Possibly OSV less Turret)

Contractor LOE TBD – Possible TACOM Action



720 - Technical & Civilian On Battle (COB) Vehicles.

Pintle Weapon Mount Development and Integration ~ 50% will be Pickup Trucks

Improvised Explosive Device Effects Simulator (IEDES)



Description/Summary of Program Requirements

Mission -The IEDES kit will support key U.S. Military IED training objectives of: Explosive Hazards (EHs) defeat, predict, prevent, detect, classify, neutralize, mark, report and record EH; and to protect personnel, equipment and facilities from EH effects.

Configuration - Explosive signatures: Small, Medium, Large, and Extra Large.

Fielding - IEDES will support training missions at Combat Training Centers, Home Stations, Joint Training Facilities and Homeland Security / Homeland Defense. Training installations.



Acquisition Strategy

- Competitive **STOC II SB (Tentative)**
- Small Business Set Aside
- Firm Fixed Price, T & M Quantity Pricing
- Base Award w/ Option Lots

Period of Performance

- Base period plus any 4 options (FY 13 – FY 17)

Milestones

Dec 11	Feb/April 12	Nov 12
Sources Sought	Draft /Final RFP Release	Contract Award

Point of Contact

Name: Mr. Ron Inmon

Organization: PEO STRI/PM LTS

Phone: (407) 384-3364

Email: Ron.Inmon@us.army.mil

Funding

- Possible funding: $49M

Current Contract/Original Developer/OEM (if recompete)

- Current Contract Type: STOC II



IEDES – Sources Sought Release, Dec 11



Non-Pyrotechnic System

- **Non-Pyrotechnic signature devices** that are scalable and allow multiple shots before requiring reloading; Device replicates small through large signatures
- **Commercial and reusa recharge systems**
- **MILES Omni Directional Emitter Capab**
- **Push/Pull Booby Trap** device
- **Pressure Se ve Personnel Trip** device
- **Suicide Vest**



- **Interface Device / Controller m**
- **Triggering Device** RF/Comman ire

Pyrotechnic Capability

- Pyrotechnic Scalable Signature Devices that is scalable and allows multiple shots before requiring reloading; Device replicates small through extra-large signatures
- Interface Device / Controller required to operate Pyrotechnic capabil

Current Fielded IEDES can be seen in the PM TRADE Booth.
Mr. Ron Inmon, 11am

Additional non-Pyrotechic capability

- **UB-IED** (underground)
- **VB-IED** (attached to a vehicle)

BLUFOR IED Training ~ RFI Mar 2012



PIDER System

Common Control Station
Enables Man-in-the-Loop (MITL) command and control of all munitions in the field

Standard antenna mast



500m

1000m

500m

Repeater

Transceiver
RCU with transceiver (RCUT) makes up the Remote Control Station (RCS) Kit

Selectable Lightweight Attack Mu





Claymore Mine





SPIDER Munition



Munition Control Unit Hand emplaced, remotely controlled munitions. Detects intrusions, controls lethal and non-lethal munitions

One Tactical Engagement Simulation System (OneTESS)



Description/Summary of Program Requirements

60mm/81mm/120mm Mortar Instrumentation Kit

Force-on-Force battalion and below **Mortar** and **Forward Observer training** at Home Station, Combat Maneuver Training Centers, and deployed sites.

Integrated instrumentation system solution at ranges and interoperable with I-MILES.



Acquisition Strategy

- Full open Competition (Tentative)
- Fixed Price Incentive Fee

Period of Performance

- Base year award with 4 option years

Milestones

Jun/Aug 12	Nov 12	Sep 13
RFI/ Sources Sought	Final RFP Release	Contract Award

Point of Contact

Name: Mr. Todd Kosis

Organization: PEO STRI/PM LTS

Phone: (407) 384-5352

Email: todd.kosis@us.army.mil

Funding

- Possible funding: $20M

Current Contract/Original Developer/OEM (if recompete)

- New procurement

OneTESS System Components



Instrumented Mortar Kit (60mm, 81mm, 120mm)

- Barrel collar
- Mortar simulator round
- WOM processing unit
- Optical sensor
- Player unit

Mr. Todd Kosis
PM TRADE Booth 11AM



Forward Observer Kit

- Player unit
- FO Tablet



PM TRADE Functional Mission Area Training Environment



T-IS

Training Instrumentation System

O/Cs

Force-On-Target

Targets

Field TOC

Force-On-Force

CTC ExCon / Range Ops Ctr / Homestation

Battlefield Effects

Urban Operations

ExCon & Comms

ExCon, AAR, RF Comms. ABCS.

T-IS

Simulated Fire

Combined Arms Engagement Pairing
BLUFOR & OPFOR

PM LTS

A-TESS

Live Fire

Instrumented Urban Operations, & Battlefield Effects

PM DT

FASIT

Standards Management (CTIA, ATESS, FASIT) - APM TRADE

Training Instrumentation System (T-IS)



T-IS Focus:

- ✓ **Reduce Operational, Sustainment, and Support Costs**
- ✓ **Simplify AAR Development Process and Enhance AAR Product** (semi-automation and data correlation)
- ✓ **Correlated / Integrated Database Architecture** (Instrumentation, OCCS, Video, ABCS, Tactical voice)
- ✓ **Common Scalable Architecture across CTCs, Live Fire Ranges and Homestation**
  - **Future authority for CTIA capability development**
- ✓ **Common Standards/Architectures across LT2-PM TRADE Road Map**
- ✓ **Active Inventory Management System (equipment distribution & recovery)**

Possible ACAT II Level Program <$250M RDTE, OPA, and OMA

- ✓ **RDTE FY15-FY18/20, OPA FY18-FY23**

RDT&E
OPA
RDT&E
OMA

- ✓ **T-IS CDD Approved NLT late FY14**
- ✓ **FY15 Award? – TBD based on POM**

Training Instrumentation System (TIS) Functional Allocation Planning Map

DRAFT



FOF / FOT Exercise Planning, Control, Monitoring, Data Collection, & AAR Development

- AAR Development & Control
- BLUFOR Tactical Data Monitoring
- Training Data Mgt. Data Correlation / Databases
- Mission Planning
- OPFOR Tactical Data Monitoring
- Operator Functions & Displays FOF / FOT
- Security IA
- O&M Equip. Control, Dist & Recovery, Preventative Maintenance
- External Interfaces LVC Interface, Green Flag
- Hardware
  - AAR Supporting Infrastructure
  - ExCon Supporting Infrastructure
  - Workstation Environment

Common Gateway / Cross Domain Solution / Security/ IA

FOF / FOT Range Networks & Field Instrumentation

- Common Backhaul Fiber, RF, Mobile, Fixed
- Field AAR BCT, CO, PLT, SQD
- Common Access Points Fixed, Mobile
- Tactical Platform Interfaces Field LVC Interface, DRTS, Sensor, UGS, VUAV Q36/37
- Common Communication Devices FOF /FOT/Range
- SMECS
- Common Data Devices OPS/Maint, & O/C Tablets, Video, 911, Health, PU, Infrastructure, & FSO
- Data Center Centralized SW Services/ Support Center
- Tactical Battlefield Monitoring TOC, ABCS, BFT, SINCGARS, JTRS, OPFOR, DTOC, Divarty

Common Message Set Library

Battlefield Instrumentation

- **FOF** Family Of Standards *ATESS* *DMT, Veh, Av, SLM*
- **BFE** Signature *Devices*
- **MOUT** *Devices & Indoor Tracking,*
- **FOT** Family Of Standards *FASIT* Targets

CTIA Services, Components, Standards, Interfaces, Processes, Governances

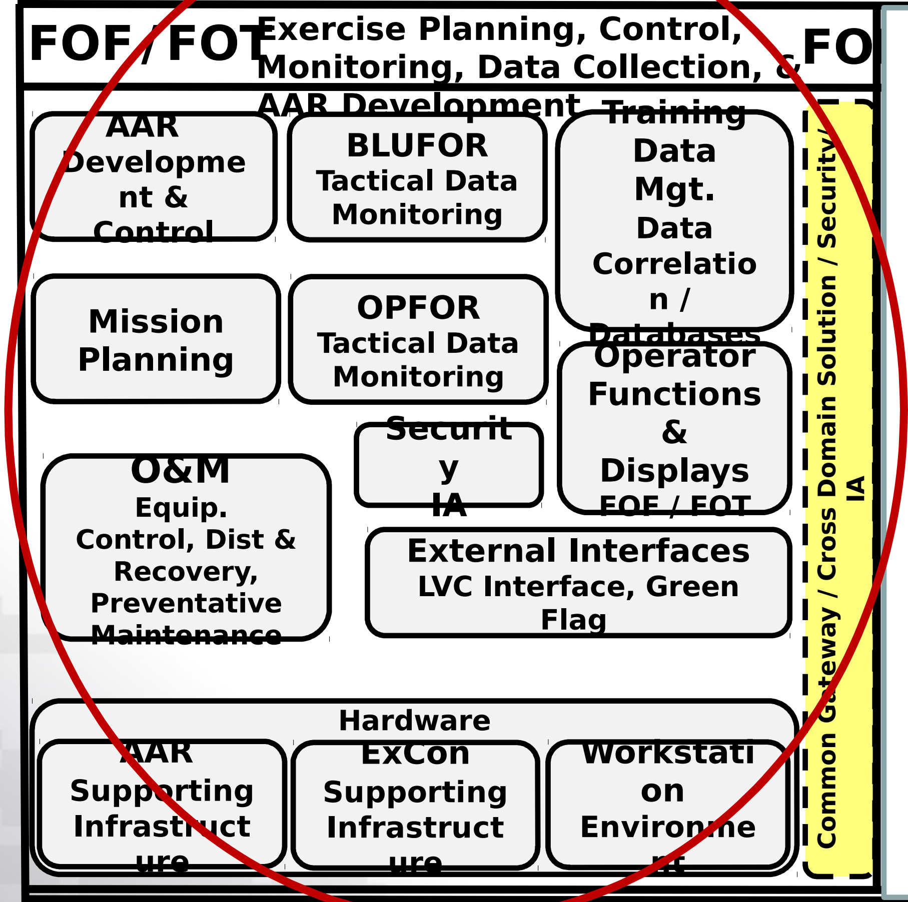
Remote Location SW / CM Support

1. Centralized SW Support (ExCon, Networks, Field inst, Battlefield Inst)
2. O&M Manuals Config. Mgt & Electronic Distribution (Operation, Maintenance, Training)
3. Logistics Database (LCM Data, System/Component Failures, LMI, Tech Data Updates)

Training Instrumentation System (TIS) Functional Allocation Planning Map

DRAFT





Exercise Planning, Control, Monitoring, Data Collection, & AAR Development

- ✓ **Common Architecture/SW for FOF, FOT, and Homestation**
  - Variations in individual User configurations GUI, and messages sets
- ✓ **Embedded Mission Planning function enables pre-AAR event correlation of voice, video, instrumentation, and ABCS**
- ✓ **Remote SW Configuration Management for all ExCon, Range Inst/Nets, and TESS**
- ✓ **Proactive O&M, Sustainment, and equipment distribution/recovery features**

CTIA Services, Components, Standards, Interfaces, Processes, Governances

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Training Instrumentation System (TIS) Functional Allocation Planning Map

DRAFT



Range Networks & Field Instrumentation

(excluding FOF & FOT Battlefield Inst.)

- ✓ Common Architecture, Networks, SW for FOF, FOT, and Homestation
- ✓ Scalable architecture common platform interfaces
- ✓ Tactical Battlefield Monitoring
- ✓ Supports Battlefield Inst CM
- ✓ Proactive O&M, Sustainment, and equipment distribution/recovery features

F / FOT Range Networks & Field Instrumentation

Common Backhaul Fiber, RF, Mobile, Fixed

Field AAR BCT, CO, PLT, SQD

Common Access Points Fixed, Mobile

Tactical Platform Interfaces Field LVC Interface, DRTS, Sensor, UGS, VUAV Q36/37

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Battlefield Instrumentation

Common Message Set Library

FOF Family Of Standards

ATESS *DMT, Veh-Av, SLM*

BFE Signature *Devices*

MOUT *Devices & Indoor Tracking,*

FOT Family Of Standards

FASIT Targets

CTIA Services, Components, Standards, Interfaces, Processes, Governances

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T-IS Industry Advance Planning Forum



T-IS Functional Requirements Planning Forum

- ✓ **Spring 2012** - Date predicated on Draft CDD maturity
- ✓ **Functional Requirements Discussion (Architecture/Technical)**
- ✓ **1-2 Days in Orlando, PEOSTRI**
- ✓ **~ 30 days advance notice provided on LT2 Portal**

lt2portal.org

A-TESS Future ICDs - Dismount

DRAFT



PAN
PAN
etectors
SAT
SAT Moun t
Halo
ATESS ICD
SW
ESS Control Unit
RF Network Interface
RTCA / BDA SW

A-TESS Future ICDs - Vehicle





ATESS ICD

SAT

SAT Mounting

CVKI

RF Network Interface

RTCA / BDA SW

Control Unit

Main Gun Transmitter

Detectors

Detectors

Hull to Turret

Weapon Interface

A-TESS Industry Advance Planning Forum



A-TESS Functional Requirements / Architecture / Standards Development Forum

- ✓ 8 & 9 February 2012,
  - PEO STRI, Building PIII, Rooms 321b & 320
- ✓ Functional Requirements Overview
- ✓ Initiate Standards Development Discussion
- ✓ Agenda and RSVP will be posted on LT2 Portal

lt2portal.org